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expressing the heat latent in the nebulous volume, and causing it to come forth as sensible heat in most active condition, and so manifest itself in a state of intense incandescence in the nucleus or planetary mass.

Should these remarks tend in the most humble degree to suggest some further thoughts on this subject to such of the members of the Royal Astronomical Society who may happen to turn their attention to these speculations, I shall feel glad in having thus ventured on suggesting them.

Note on the Relations of the Perihelia and Nodes of Cometary Orbits. By Edward Cooper, Esq.

" In the Introduction to my little work on Cometic Orbits, published last year, I called the attention of astronomers to the somewhat remarkable result of an investigation into the places of the perihelia and nodes of periodic comets, and of a comparison with those of the then known planets.

" The number of comets then known, or supposed to complete their revolutions in times under 500 years, was 23; and it so happened that the then known number of planets was also 23. Since the date of the Introduction I have mentioned twelve new asteroids have been added to the preceding 23; thus producing a total of 35 planets discovered up to the present date. It appeared to me to be desirable to class these bodies, as I had previously done the former; and the result at present stands thus:—

" *L. P.'s of Planets.*

Hel. L.			
Between 45° and 135°	13		24
135 — 225	5	11	
225 — 315	6		
315 — 45	11		

" The numbers formerly were 16 and 7; now we have 24 and 11: a fact which appears materially to strengthen the suspicion of some yet undiscovered law. However, when the same process is applied to the nodes, although the result be similar, yet a much more remarkable one arises from the adoption of a different semicircle.

" *☊ of Planets.*

Hel. L.			
Between 45° and 135°	19		21
135 — 225	9	13	
225 — 315	4		
315 — 45	2		

" But if, instead of the semi-circles 315° to 135° and 135° to 315°, we adopt those from 45° to 225° and 225° to 45°, we see

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that, of the ascending nodes of 34 planets, 28 are found in the first semi-circle and only 6 in the second. Again, the semi-circles that contain the greatest number of L. P.'s of planets are between 0° and 180° or 10° and 190°. That which contains the greatest number of nodes is between 35° and 215°. In the first case there are 26, and in the latter 29. The quadrant containing the largest number of L. P.'s of planets is that between 11° and 101°, of which there are 16. That containing the largest of nodes is from $35^{\circ}\frac{1}{2}$ to $125^{\circ}\frac{1}{2}$, of which there are 20. Perhaps what I have now brought under your notice may interest the Royal Astronomical Society."

A Catalogue of the Right Ascensions of 1009 *Stars contained in the Catalogue of the British Association for the Advancement of Science, being chiefly those of the 6th and 7th magnitudes.* By Lord Wrottesley.

"In the commencement of the year 1842, I resolved on erecting an Observatory near to my residence in Staffordshire; and on the 29th March in that year the first stone of the building was laid by my youngest son, on an elevated position, about 500 yards to the N. by W. of the mansion. On the 11th May following, the transit piers were fixed, and on the 8th of October in the same year, the 5-foot transit, with which I observed my Blackheath Catalogue of 1318 stars, was finally placed upon them, and ready for work in its new locality.

"In the preceding January I had purchased from Mr. Beaumont of Finningley, in the county of York, an achromatic telescope of 10 feet 9 inches focal length, with an object-glass of $7\frac{1}{4}$ inches clear aperture; of this the flint glass is by Guinand, and the crown by Dollond, who gave the curves to the glasses and completed the instrument. The telescope is equatoreally mounted after the English fashion.

"The building was, therefore, designed to contain the transit and equatoreal above described, with apartments for the residence of an observer.*

"The shaded portion of the accompanying ground-plan, which is surrounded by a 9-inch wall, represents a mass of concrete, which is continuous beneath the flooring of both the transit and equatoreal rooms, and supports the transit and equatoreal piers, and the piers of two sidereal clocks and the driving clock. The wall which divides the equatoreal from the transit-room is built on a brick arch which bestrides the concrete mass, so that the latter, and the piers supported by it, are completely independent of the shell of the building itself. All the piers repose on vast masses of sandstone, which rest on the concrete base.

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* The author here subjoins a ground-plan of the Observatory which, he remarks, will save much tediousness of description. He also presents to the Society a view of the south front of the building.

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